In the Claims

1. (Currently Amended) An anode assembly comprising:

an anode disc;

a first x-ray source connected to the anode disc and configured to emit a first fan beam of x-rays;

a second x-ray source connected to the anode disc and configured to emit a second fan beam of x-rays;

wherein the first x-ray source has a distance from a center of the anode disc different than that of the second x-ray source; ~~and~~

wherein the first x-ray source and the second x-ray source are configured to extend radially about the anode disc; and

wherein the second fan beam has a spatial coverage equal to that of the first fan beam.

2. (Original) The anode assembly of claim 1 wherein the anode disc is rotatable.

3. (Canceled)

4. (Original) The anode assembly of claim 1 incorporated into a CT scanner.

5. (Original) The anode assembly of claim 4 wherein the first and the second x-ray sources are positioned relative to one another on the anode disc such that the first and the second x-ray sources may be treated as a single focal point for CT reconstruction.

6. (Original) The anode assembly of claim 4 wherein each x-ray source is configured to operate at an approximate 50% duty cycle per CT scan.

7. (Original) The anode assembly of claim 1 wherein each fan beam has a penumbra that extends along a z-axis.

8. (Original) The anode assembly of claim 1 wherein each x-ray source includes a tungsten target track integrally formed in a bevel region of the anode disc.

9. (Previously Presented) An x-ray tube assembly comprising:

a plurality of independently controllable electron sources configured to emit electrons;

an anode disc;

a plurality of target electrodes disposed on the anode disc and configured to receive electrons emitted by the plurality of independently controllable electron sources and emit a plurality of fan beams of radiographic energy in response thereto; and

wherein the plurality of independently controllable electron sources includes a first target electrode at a first radial distance from a center of the anode disc to produce a first spatial coverage and a second target electrode at a second radial distance from the center of the anode disc that is different than the first radial distance to produce a second spatial coverage that is substantially similar to the first spatial coverage.

10. (Original) The x-ray tube assembly of claim 9 wherein the plurality of target electrodes is oriented with respect to one another such that each fan beam has a similar spatial coverage.

11. (Original) The x-ray tube assembly of claim 10 wherein each fan beam extends along a z-axis.

12. (Previously Presented) The x-ray tube assembly of claim 9 wherein the plurality of electron sources includes a plurality of tungsten targets integrated in a beveled portion of the anode disc.

13. (Original) The x-ray tube assembly of claim 9 wherein the plurality of target electrodes includes a pair of target electrodes and wherein each target electrode is configured to emit a respective fan beam of x-rays, each fan beam having a focal spot such that the respective focal spots are spaced apart from one another along a z-direction by approximately one millimeter.

14. (Original) The x-ray tube assembly of claim 13 wherein the respective focal spots are spatially separated from one another in an x-direction.

15. (Original) The x-ray tube assembly of claim 9 wherein the plurality of electron sources includes a pair of cathode filaments and wherein the pair of cathode filaments is configured to alternately fire during an imaging scan.

16. (Original) The x-ray tube assembly of claim 9 incorporated into a CT imaging system.

17. (Original) The x-ray tube assembly of claim 16 wherein the CT imaging system includes a medical diagnostic imaging scanner.

18-24. (Canceled)